Date: Tue, 9 Nov 93 18:28:50 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #1329
To: Info-Hams

Info-Hams Digest   Tue, 9 Nov 93   Volume 93 : Issue 1329

Today's Topics:

                    How Sensitive Are Front-Ends?
                          ORBS$309.2L.AMSAT
                         ORBS$309.MICRO.AMSAT
                         ORBS$309.MISC.AMSAT
                         ORBS$309.OSCAR.AMSAT
                         ORBS$309.WEATH.AMSAT
                question about Rohn 25 tower sections
                  WW-DX Fone 93 QSL info collection

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 9 Nov 93 14:50:34 GMT
From: ogicse!emory!rsiatl!ke4zv!gary@network.ucsd.edu
Subject: How Sensitive Are Front-Ends?
To: info-hams@ucsd.edu

In article <2bmn9j$d0q@oak.oakland.edu> sdkuo@argo.acs.oakland.edu writes:
>How sensitive are the front-ends of my scanner, cell-phone and amateur
>rig? My plan is to have an Icom2410 (up to 45/35 watts on 144/440),
>scanner (wide-band) and cell-phone (3 watts on 800) all mounted in
>my car. All three antennas will be at the rear end spaced approximately
>2-3 feet from each other. The Icom antenna will be trunk-lip-mount, the
>cell-phone antenna is glass mount at the top of the glass and the scanner
>antenna will be trunk-lip-mount on the other side. With this configuration
>is it safe to operate all three devices simultaneously without fear of
>damaging front-ends?

I run 2 meters, 70 cm, and cellphone in my truck. I use a Comet
triplexer and a Comet dualband antenna. It's worked fine, but
I've never tried transmitting on all three bands at once. It's
very unlikely that the 70cm or cellphone will bother the 2 meter
receiver, but the 2 meter transmitter may bother the 70 cm receiver
and the 70 cm transmitter may bother the cellphone. I doubt you'll
see any actual damage, however. The triplexer I use gives me more
isolation than parallel separate antennas, so your problems may
be more severe.

Note that I'm using a dualband antenna for three bands. That's
not ideal, but it seems to perform well with the cellphone.
Comet does make a triband antenna, but it's a good bit taller.

Gary
--
Gary Coffman KE4ZV |"If 10% is good enough | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
534 Shannon Way | enough for Uncle Sam."| emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Ray Stevens |

Date: 9 Nov 93 14:06:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS$309.2L.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT $ORBS-309.N
2Line Orbital Elements 309.AMSAT

HR AMSAT ORBITAL ELEMENTS FOR AMATEUR SATELLITES IN NASA FORMAT
FROM WA5QGD FORT WORTH,TX November 5, 1993
BID: $ORBS-309.N

DECODE 2-LINE ELSETS WITH THE FOLLOWING KEY:
1 AAAAAU 00 0 0 BBBBB.BBBBBBBB .CCCCCCCC 00000-0 00000-0 0 DDDZ
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJJKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

TO ALL RADIO AMATEURS BT

AO-10
1 14129U 83058B   93304.58449144 -.00000081 00000-0 10000-3 0 2086
2 14129 27.1748 358.4423 6020940 126.4893 305.1053 2.05881853 78069
UO-11

1 14781U 84021B   93305.54538526 .00000296 00000-0 54251-4 0 6090
2 14781 97.7991 325.8082 0011018 282.0872 77.9100 14.69077007516886
RS-10/11
1 18129U 87054A   93305.59183547 .00000065 00000-0 65036-4 0 8092
2 18129 82.9224 137.0717 0010991 302.1752 57.8336 13.72325432318697
AO-13
1 19216U 88051B   93307.23725473 .00000090 00000-0 10000-4 0 8089
2 19216 57.9066 286.1519 7212798 327.5952   3.5951 2.09718076 41261
FO-20
1 20480U 90013C   93305.55138133 -.00000003 00000-0 19656-4 0 6066
2 20480 99.0216 135.6374 0540941 135.2941 229.3106 12.83221774174934
AO-21
1 21087U 91006A   93304.53629287 .00000085 00000-0 82657-4 0 3646
2 21087 82.9426 311.9252 0036267   3.5583 356.5824 13.74527897138178
RS-12/13
1 21089U 91007A   93305.16779150 .00000049 00000-0 45798-4 0 6091
2 21089 82.9248 180.5404 0030819 24.3136 335.9466 13.74028945137333
ARSENE
1 22654U 93031B   93307.87458422 -.00000047 00000-0 10000-3 0 2064
2 22654   1.4047 114.5073 2932585 159.9734 215.1574 1.42202783 2556
UO-14
1 20437U 90005B   93305.79485889 .00000056 00000-0 29722-4 0 9096
2 20437 98.6068 28.5031 0011192 135.3995 224.8082 14.29800168197094
AO-16
1 20439U 90005D   93305.85927415 .00000042 00000-0 24160-4 0 7095
2 20439 98.6145 29.5723 0011602 136.0025 224.2083 14.29857546197119
DO-17
1 20440U 90005E   93305.76563670 .00000091 00000-0 42987-4 0 7097
2 20440 98.6158 29.7316 0011680 135.7129 224.4991 14.29994975197110
WO-18
1 20441U 90005F   93305.73713684 .00000063 00000-0 32288-4 0 7101
2 20441 98.6154 29.7202 0012272 136.2053 224.0105 14.29972911197110
LO-19
1 20442U 90005G   93305.73028990 .00000075 00000-0 36877-4 0 7090
2 20442 98.6164 29.9187 0012552 136.0090 224.2096 14.30064904197124
UO-22
1 21575U 91050B   93305.22118444 .00000087 00000-0 36302-4 0 4090
2 21575 98.4611 19.0489 0006839 252.1598 107.8843 14.36860705120341
KO-23
1 22077U 92052B   93305.58451707 .00000000 00000-0 10000-3 0 3069
2 22077 66.0810 36.5184 0004304 343.4855 16.6013 12.86281631 57503
AO-27
1 22825U 93061C   93305.38322237 .00000057 00000-0 31218-4 0 2082
2 22825 98.6783 18.2116 0008754 149.2634 210.9045 14.27587035 5170
IO-26
1 22826U 93061D   93305.66096033 .00000076 00000-0 39017-4 0 2093
2 22826 98.6791 18.4934 0009019 149.5441 210.6266 14.27689613 5227
KO-25

```
1 22830U 93061H   93305.72284171  .00000098  00000-0  47343-4 0  2092
2 22830  98.5806  18.2166 0012009 119.7937 240.4440 14.28013237  5235
NOAA-9
1 15427U 84123A   93300.72651427  .00000099  00000-0  62608-4 0  6087
2 15427  99.0865 343.0970 0014906 151.8994 208.2999 14.13555759457494
NOAA-10
1 16969U 86073A   93308.02577200  .00000107  00000-0  53892-4 0  5086
2 16969  98.5151 318.8770 0012448 270.5362  89.4395 14.24841200370532
MET-2/17
1 18820U 88005A   93305.40899406  .00000032  00000-0  23367-4 0  2083
2 18820  82.5395  89.7759 0017369  97.5771 262.7364 13.84696069290834
MET-3/2
1 19336U 88064A   93305.55018966  .00000043  00000-0  10000-3 0  2082
2 19336  82.5396 124.7724 0017722 109.4807 250.8231 13.16961800253299
NOAA-11
1 19531U 88089A   93307.95823027  .00000139  00000-0  84844-4 0  4080
2 19531  99.1482 286.6377 0012789  46.5585 313.6658 14.12928630263406
MET-2/18
1 19851U 89018A   93305.55168377  .00000050  00000-0  39042-4 0  2093
2 19851  82.5192 325.4084 0014919 140.2906 219.9350 13.84347900236194
MET-3/3
1 20305U 89086A   93305.34380136  .00000043  00000-0  10000-3 0  9103
2 20305  82.5448  68.1007 0016603 130.0738 230.1843 13.16022865193146
MET-2/19
1 20670U 90057A   93305.67783111  .00000015  00000-0  79036-5 0  7095
2 20670  82.5480  29.1810 0017400  65.4367 294.8606 13.84179093169149
FY-1/2
1 20788U 90081A   93305.63546907  .00000382  00000-0  27579-3 0  8145
2 20788  98.8527 327.8837 0014369 289.5569  70.4043 14.01323225161831
MET-2/20
1 20826U 90086A   93305.58234679  .00000060  00000-0  49516-4 0  7088
2 20826  82.5271 327.0777 0013356 332.2781  27.7665 13.83562796156287
MET-3/4
1 21232U 91030A   93305.01404630  .00000043  00000-0  10000-3 0  6113
2 21232  82.5424 330.9137 0013905  42.1675 318.0510 13.16456292121322
NOAA-12
1 21263U 91032A   93308.09045315  .00000189  00000-0  93717-4 0  8155
2 21263  98.6458 335.5750 0012543 165.4607 194.6943 14.22328054128523
MET-3/5
1 21655U 91056A   93305.42070734  .00000043  00000-0  10000-3 0  6096
2 21655  82.5506 277.5885 0014831  46.4002 313.8349 13.16825091106488
MET-2/21
1 22782U 93055A   93305.69077331  .00000097  00000-0  83607-4 0  2086
2 22782  82.5501  26.7162 0022599 139.9349 220.3485 13.82989496  8644
MIR
1 16609U 86017A   93307.02460777  .00007548  00000-0  10004-3 0  5571
2 16609  51.6166 241.9916 0005351 357.5971   2.3966 15.59373937440783
HUBBLE
```

1 20580U 90037B   93304.54445163 .00001034 00000-0 90245-4 0 3586
2 20580 28.4692 265.3717 0004590 39.2797 320.8122 14.92898437191907
GRO
1 21225U 91027B   93305.62490056 .00015490 00000-0 16723-3 0 2144
2 21225 28.4634 16.0411 0076168 268.0046 91.1839 15.58193508 21760
UARS
1 21701U 91063B   93305.16980968 -.00002638 00000-0 -22141-3 0 4109
2 21701 56.9842 352.6445 0005527 86.5474 273.6229 14.96241514116791
POSAT
1 22829U 93 61 G 93289.11726978 .00000072 00000-0 37231-4 0 2042
2 22829 98.6763   2.0610 0010043 184.4594 175.6498 14.27975951 2862
/EX

Date: 9 Nov 93 13:58:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS$309.MICRO.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT $ORBS-309.D
Orbital Elements 309.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM WA5QGD FORT WORTH,TX November 5, 1993
BID: $ORBS-309.D
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 93305.79485889
Element set: 909
Inclination: 98.6068 deg
RA of node: 28.5031 deg
Eccentricity: 0.0011192
Arg of perigee: 135.3995 deg
Mean anomaly: 224.8082 deg
Mean motion: 14.29800168 rev/day
Decay rate: 5.6e-07 rev/day^2
Epoch rev: 19709
Checksum: 335

Satellite: AO-16
Catalog number: 20439
Epoch time: 93305.85927415
Element set: 709
Inclination: 98.6145 deg
RA of node: 29.5723 deg

```
Eccentricity:    0.0011602
Arg of perigee:   136.0025 deg
Mean anomaly:     224.2083 deg
Mean motion:   14.29857546 rev/day
Decay rate:        4.2e-07 rev/day^2
Epoch rev:           19711
Checksum:              298

Satellite: DO-17
Catalog number: 20440
Epoch time:      93305.76563670
Element set:     709
Inclination:       98.6158 deg
RA of node:        29.7316 deg
Eccentricity:    0.0011680
Arg of perigee:   135.7129 deg
Mean anomaly:     224.4991 deg
Mean motion:   14.29994975 rev/day
Decay rate:        9.1e-07 rev/day^2
Epoch rev:           19711
Checksum:              333

Satellite: WO-18
Catalog number: 20441
Epoch time:      93305.73713684
Element set:     710
Inclination:       98.6154 deg
RA of node:        29.7202 deg
Eccentricity:    0.0012272
Arg of perigee:   136.2053 deg
Mean anomaly:     224.0105 deg
Mean motion:   14.29972911 rev/day
Decay rate:        6.3e-07 rev/day^2
Epoch rev:           19711
Checksum:              274

Satellite: LO-19
Catalog number: 20442
Epoch time:      93305.73028990
Element set:     709
Inclination:       98.6164 deg
RA of node:        29.9187 deg
Eccentricity:    0.0012552
Arg of perigee:   136.0090 deg
Mean anomaly:     224.2096 deg
Mean motion:   14.30064904 rev/day
Decay rate:        7.5e-07 rev/day^2
Epoch rev:           19712
```

```
Checksum:              299

Satellite: UO-22
Catalog number: 21575
Epoch time:      93305.22118444
Element set:     409
Inclination:       98.4611 deg
RA of node:        19.0489 deg
Eccentricity:    0.0006839
Arg of perigee:   252.1598 deg
Mean anomaly:     107.8843 deg
Mean motion:   14.36860705 rev/day
Decay rate:        8.7e-07 rev/day^2
Epoch rev:           12034
Checksum:              308

Satellite: KO-23
Catalog number: 22077
Epoch time:      93305.58451707
Element set:     306
Inclination:       66.0810 deg
RA of node:        36.5184 deg
Eccentricity:    0.0004304
Arg of perigee:   343.4855 deg
Mean anomaly:      16.6013 deg
Mean motion:   12.86281631 rev/day
Decay rate:      .00000000 rev/day^2
Epoch rev:            5750
Checksum:              255

Satellite: AO-27
Catalog number: 22825
Epoch time:      93305.38322237
Element set:     208
Inclination:       98.6783 deg
RA of node:        18.2116 deg
Eccentricity:    0.0008754
Arg of perigee:   149.2634 deg
Mean anomaly:     210.9045 deg
Mean motion:   14.27587035 rev/day
Decay rate:        5.7e-07 rev/day^2
Epoch rev:             517
Checksum:              300

Satellite: IO-26
Catalog number: 22826
Epoch time:      93305.66096033
Element set:     209
```

```
Inclination:       98.6791 deg
RA of node:        18.4934 deg
Eccentricity:    0.0009019
Arg of perigee:   149.5441 deg
Mean anomaly:     210.6266 deg
Mean motion:   14.27689613 rev/day
Decay rate:        7.6e-07 rev/day^2
Epoch rev:             522
Checksum:              311

Satellite: KO-25
Catalog number: 22830
Epoch time:      93305.72284171
Element set:     209
Inclination:       98.5806 deg
RA of node:        18.2166 deg
Eccentricity:    0.0012009
Arg of perigee:   119.7937 deg
Mean anomaly:     240.4440 deg
Mean motion:   14.28013237 rev/day
Decay rate:        9.8e-07 rev/day^2
Epoch rev:             523
Checksum:              281

/EX

------------------------------

Date: 9 Nov 93 14:04:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS$309.MISC.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT  $ORBS-309.M
Orbital Elements  309.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM WA5QGD FORT WORTH,TX November 5, 1993
BID: $ORBS-309.M
TO ALL RADIO AMATEURS BT

Satellite: MIR
Catalog number: 16609
Epoch time:      93307.02460777
Element set:     557
Inclination:       51.6166 deg
RA of node:       241.9916 deg
Eccentricity:    0.0005351
```

```
Arg of perigee:   357.5971 deg
Mean anomaly:       2.3966 deg
Mean motion:   15.59373937 rev/day
Decay rate:      7.548e-05 rev/day^2
Epoch rev:           44078
Checksum:              335

Satellite: HUBBLE
Catalog number: 20580
Epoch time:      93304.54445163
Element set:     358
Inclination:       28.4692 deg
RA of node:       265.3717 deg
Eccentricity:    0.0004590
Arg of perigee:    39.2797 deg
Mean anomaly:     320.8122 deg
Mean motion:   14.92898437 rev/day
Decay rate:      1.034e-05 rev/day^2
Epoch rev:           19190
Checksum:              308

Satellite: GRO
Catalog number: 21225
Epoch time:      93305.62490056
Element set:     214
Inclination:       28.4634 deg
RA of node:        16.0411 deg
Eccentricity:    0.0076168
Arg of perigee:   268.0046 deg
Mean anomaly:      91.1839 deg
Mean motion:   15.58193508 rev/day
Decay rate:     1.5490e-04 rev/day^2
Epoch rev:            2176
Checksum:              283

Satellite: UARS
Catalog number: 21701
Epoch time:      93305.16980968
Element set:     410
Inclination:       56.9842 deg
RA of node:       352.6445 deg
Eccentricity:    0.0005527
Arg of perigee:    86.5474 deg
Mean anomaly:     273.6229 deg
Mean motion:   14.96241514 rev/day
Decay rate:     -2.638e-05 rev/day^2
Epoch rev:           11679
Checksum:              319
```

```
Satellite: POSAT
Catalog number: 22829
Epoch time:      93289.11726978
Element set:     204
Inclination:       98.6763 deg
RA of node:         2.0610 deg
Eccentricity:    0.0010043
Arg of perigee:   184.4594 deg
Mean anomaly:     175.6498 deg
Mean motion:   14.27975951 rev/day
Decay rate:         7.2e-07 rev/day^2
Epoch rev:              286
Checksum:               317

/EX

------------------------------

Date: 9 Nov 93 13:47:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS$309.OSCAR.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT  $ORBS-309.O
Orbital Elements  309.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM WA5QGD FORT WORTH,TX November 5, 1993
BID: $ORBS-309.O
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time:      93304.58449144
Element set:     208
Inclination:       27.1748 deg
RA of node:       358.4423 deg
Eccentricity:    0.6020940
Arg of perigee:   126.4893 deg
Mean anomaly:     305.1053 deg
Mean motion:    2.05881853 rev/day
Decay rate:       -8.1e-07 rev/day^2
Epoch rev:            7806
Checksum:              297

Satellite: UO-11
Catalog number: 14781
```

```
Epoch time:      93305.54538526
Element set:     609
Inclination:       97.7991 deg
RA of node:       325.8082 deg
Eccentricity:    0.0011018
Arg of perigee:   282.0872 deg
Mean anomaly:      77.9100 deg
Mean motion:   14.69077007 rev/day
Decay rate:       2.96e-06 rev/day^2
Epoch rev:           51688
Checksum:              326

Satellite: RS-10/11
Catalog number: 18129
Epoch time:      93305.59183547
Element set:     809
Inclination:       82.9224 deg
RA of node:       137.0717 deg
Eccentricity:    0.0010991
Arg of perigee:   302.1752 deg
Mean anomaly:      57.8336 deg
Mean motion:   13.72325432 rev/day
Decay rate:        6.5e-07 rev/day^2
Epoch rev:           31869
Checksum:              309

Satellite: AO-13
Catalog number: 19216
Epoch time:      93307.23725473
Element set:     808
Inclination:       57.9066 deg
RA of node:       286.1519 deg
Eccentricity:    0.7212798
Arg of perigee:   327.5952 deg
Mean anomaly:       3.5951 deg
Mean motion:    2.09718076 rev/day
Decay rate:        9.0e-07 rev/day^2
Epoch rev:            4126
Checksum:              324

Satellite: FO-20
Catalog number: 20480
Epoch time:      93305.55138133
Element set:     606
Inclination:       99.0216 deg
RA of node:       135.6374 deg
Eccentricity:    0.0540941
Arg of perigee:   135.2941 deg
```

```
Mean anomaly:     229.3106 deg
Mean motion:   12.83221774 rev/day
Decay rate:       -3.0e-08 rev/day^2
Epoch rev:           17493
Checksum:              281

Satellite: AO-21
Catalog number: 21087
Epoch time:      93304.53629287
Element set:     364
Inclination:       82.9426 deg
RA of node:       311.9252 deg
Eccentricity:    0.0036267
Arg of perigee:     3.5583 deg
Mean anomaly:     356.5824 deg
Mean motion:   13.74527897 rev/day
Decay rate:        8.5e-07 rev/day^2
Epoch rev:           13817
Checksum:              327

Satellite: RS-12/13
Catalog number: 21089
Epoch time:      93305.16779150
Element set:     609
Inclination:       82.9248 deg
RA of node:       180.5404 deg
Eccentricity:    0.0030819
Arg of perigee:    24.3136 deg
Mean anomaly:     335.9466 deg
Mean motion:   13.74028945 rev/day
Decay rate:        4.9e-07 rev/day^2
Epoch rev:           13733
Checksum:              313

Satellite: ARSENE
Catalog number: 22654
Epoch time:      93307.87458422
Element set:     206
Inclination:        1.4047 deg
RA of node:       114.5073 deg
Eccentricity:    0.2932585
Arg of perigee:   159.9734 deg
Mean anomaly:     215.1574 deg
Mean motion:    1.42202783 rev/day
Decay rate:       -4.7e-07 rev/day^2
Epoch rev:             255
Checksum:              286
```

/EX

Date: 9 Nov 93 14:02:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS$309.WEATH.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT $ORBS-309.W
Orbital Elements 309.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM WA5QGD FORT WORTH,TX November 5, 1993
BID: $ORBS-309.W
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 93300.72651427
Element set: 608
Inclination: 99.0865 deg
RA of node: 343.0970 deg
Eccentricity: 0.0014906
Arg of perigee: 151.8994 deg
Mean anomaly: 208.2999 deg
Mean motion: 14.13555759 rev/day
Decay rate: 9.9e-07 rev/day^2
Epoch rev: 45749
Checksum: 353

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 93308.02577200
Element set: 508
Inclination: 98.5151 deg
RA of node: 318.8770 deg
Eccentricity: 0.0012448
Arg of perigee: 270.5362 deg
Mean anomaly: 89.4395 deg
Mean motion: 14.24841200 rev/day
Decay rate: 1.07e-06 rev/day^2
Epoch rev: 37053
Checksum: 298

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 93305.40899406

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Element set:     208
Inclination:       82.5395 deg
RA of node:        89.7759 deg
Eccentricity:    0.0017369
Arg of perigee:    97.5771 deg
Mean anomaly:     262.7364 deg
Mean motion:   13.84696069 rev/day
Decay rate:        3.2e-07 rev/day^2
Epoch rev:           29083
Checksum:              358

Satellite: MET-3/2
Catalog number: 19336
Epoch time:      93305.55018966
Element set:     208
Inclination:       82.5396 deg
RA of node:       124.7724 deg
Eccentricity:    0.0017722
Arg of perigee:   109.4807 deg
Mean anomaly:     250.8231 deg
Mean motion:   13.16961800 rev/day
Decay rate:        4.3e-07 rev/day^2
Epoch rev:           25329
Checksum:              300

Satellite: NOAA-11
Catalog number: 19531
Epoch time:      93307.95823027
Element set:     408
Inclination:       99.1482 deg
RA of node:       286.6377 deg
Eccentricity:    0.0012789
Arg of perigee:    46.5585 deg
Mean anomaly:     313.6658 deg
Mean motion:   14.12928630 rev/day
Decay rate:       1.39e-06 rev/day^2
Epoch rev:           26340
Checksum:              329

Satellite: MET-2/18
Catalog number: 19851
Epoch time:      93305.55168377
Element set:     209
Inclination:       82.5192 deg
RA of node:       325.4084 deg
Eccentricity:    0.0014919
Arg of perigee:   140.2906 deg
Mean anomaly:     219.9350 deg
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Mean motion:   13.84347900 rev/day
Decay rate:        5.0e-07 rev/day^2
Epoch rev:           23619
Checksum:              312

Satellite: MET-3/3
Catalog number: 20305
Epoch time:      93305.34380136
Element set:     910
Inclination:       82.5448 deg
RA of node:        68.1007 deg
Eccentricity:    0.0016603
Arg of perigee:   130.0738 deg
Mean anomaly:     230.1843 deg
Mean motion:   13.16022865 rev/day
Decay rate:        4.3e-07 rev/day^2
Epoch rev:           19314
Checksum:              256

Satellite: MET-2/19
Catalog number: 20670
Epoch time:      93305.67783111
Element set:     709
Inclination:       82.5480 deg
RA of node:        29.1810 deg
Eccentricity:    0.0017400
Arg of perigee:    65.4367 deg
Mean anomaly:     294.8606 deg
Mean motion:   13.84179093 rev/day
Decay rate:        1.5e-07 rev/day^2
Epoch rev:           16914
Checksum:              306

Satellite: FY-1/2
Catalog number: 20788
Epoch time:      93305.63546907
Element set:     814
Inclination:       98.8527 deg
RA of node:       327.8837 deg
Eccentricity:    0.0014369
Arg of perigee:   289.5569 deg
Mean anomaly:      70.4043 deg
Mean motion:   14.01323225 rev/day
Decay rate:       3.82e-06 rev/day^2
Epoch rev:           16183
Checksum:              328

Satellite: MET-2/20
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Catalog number: 20826
Epoch time:      93305.58234679
Element set:     708
Inclination:       82.5271 deg
RA of node:       327.0777 deg
Eccentricity:    0.0013356
Arg of perigee:   332.2781 deg
Mean anomaly:      27.7665 deg
Mean motion:   13.83562796 rev/day
Decay rate:        6.0e-07 rev/day^2
Epoch rev:           15628
Checksum:              325

Satellite: MET-3/4
Catalog number: 21232
Epoch time:      93305.01404630
Element set:     611
Inclination:       82.5424 deg
RA of node:       330.9137 deg
Eccentricity:    0.0013905
Arg of perigee:    42.1675 deg
Mean anomaly:     318.0510 deg
Mean motion:   13.16456292 rev/day
Decay rate:        4.3e-07 rev/day^2
Epoch rev:           12132
Checksum:              241

Satellite: NOAA-12
Catalog number: 21263
Epoch time:      93308.09045315
Element set:     815
Inclination:       98.6458 deg
RA of node:       335.5750 deg
Eccentricity:    0.0012543
Arg of perigee:   165.4607 deg
Mean anomaly:     194.6943 deg
Mean motion:   14.22328054 rev/day
Decay rate:       1.89e-06 rev/day^2
Epoch rev:           12852
Checksum:              306

Satellite: MET-3/5
Catalog number: 21655
Epoch time:      93305.42070734
Element set:     609
Inclination:       82.5506 deg
RA of node:       277.5885 deg
Eccentricity:    0.0014831
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Arg of perigee:    46.4002 deg
Mean anomaly:     313.8349 deg
Mean motion:   13.16825091 rev/day
Decay rate:        4.3e-07 rev/day^2
Epoch rev:           10648
Checksum:              294

Satellite: MET-2/21
Catalog number: 22782
Epoch time:      93305.69077331
Element set:     208
Inclination:       82.5501 deg
RA of node:        26.7162 deg
Eccentricity:    0.0022599
Arg of perigee:   139.9349 deg
Mean anomaly:     220.3485 deg
Mean motion:   13.82989496 rev/day
Decay rate:        9.7e-07 rev/day^2
Epoch rev:             864
Checksum:              330

/EX
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Date: 9 Nov 93 18:55:40 GMT
From: ogicse!hp-cv!sdd.hp.com!hpscit.sc.hp.com!cupnews0.cup.hp.com!
jholly@network.ucsd.edu
Subject: question about Rohn 25 tower sections
To: info-hams@ucsd.edu

Scott Ginsburg (ginsburg@wellfleet.COM) wrote:

: I have the opportunity to pick up 4 10 ft sections of Rohn 25 tower for $100.
: They're 25 years old, and have been sitting in a garage for the last
: 18 years. They spent the first 7 years in a free-standing configuration,
: no house brackets, no guys. The seller told me the tower has had 2 men
: on top with no problem, and it lived through 2 hurricanes during the 7
: years.

: My questions are:

: 1. What are the chances that the bottom section, or any other
:   sections were weakened enough over 7 years to yield the tower
:   unsafe given the lack of secure installation?

: 2. What signs can I look for that will indicate damage?

: Some hints received via my local 2-mtr repeater:

: 1. Rohn suggests 30 ft max for free-standing so 40 ft might
:   be OK, call Rohn (which I plan on doing).

: 2. Look for egg shaped bolt holes.

: 3. Look for twisting.

You might add
           Look for obvious cracks...the smaller ones would have to be
           magnafluxed.

           What is the galvanize like? Still good? corrosion?

       I think I would be more concerned about the first 7 years than the
       last 18. Sitting in a garage should not cause problems, as long as
       the sections were not drven on, beat on, and in general abused.

       Another thing you might inquire about is what was the size of the
       antenna on top during the 7 years it was up. I think the 25G
       could support about 2 sq. ft. or so self supporting, but Rohn
       should be able to give you the answer.

Jim Hollenback, WA6SDM
jholly@cup.hp.com

:   Thanks and 73,
:   Scott, WA2CJT
: --
: Scott Ginsburg   Voice: 508-436-3836
: Wellfleet Communications Internet: ginsburg@wellfleet.com
: 2 Federal St.   Amateur Radio: WA2CJT
: Billerica, MA 01821   Packet: wa2cjt@n0ary.#nocal.ca.usa.na

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Date: 9 Nov 1993 10:46:25 +0200
From: mcsun!news.funet.fi!butler.cc.tut.fi!lehtori.cc.tut.fi!not-for-
mail@uunet.uu.net
Subject: WW-DX Fone 93 QSL info collection
To: info-hams@ucsd.edu

>OH2X via OH-buro
>OH0DX via OH2BAD

de Pete
oh3mep

Date: 9 Nov 93 14:19:25 GMT
From: ogicse!emory!rsiatl!ke4zv!gary@network.ucsd.edu
To: info-hams@ucsd.edu

References <2blvfq$6m6@pith.uoregon.edu>, <8NOV199313080974@zeus.tamu.edu>,
<931108.79382.GREGL@delphi.com>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: Care and Feeding LARGE Gel-Cells?

In article <931108.79382.GREGL@delphi.com> Greg Law <GREGL@delphi.com> writes:
>Somewhat along the same lines. . .
>
>I purchase two Panasonic LCR12V2.2P lead-acid batteries for use with the
>HTX-202. These are fairly nice 2.2 amp/hour batteries that are about the same
>size as my HTX-202. I've used these batteries for hours on end without
>having to recharge them -- much better than the stock NiCds. The only
>"problem" I've run into so far is charging them. I have a small lead-acid
>charger of the type you can get in the Automotive departments at Wal-Mart,
>K-Mart, Target, etc. that is settable between 2A/6A charging rates. So far
>this charger seems to be working well but it's a manual type and I'm not
>sure how long I should charge the batteries. What I've been doing is letting
>the battery drop to about 10 to 10.5 volts then throwing it on the charger
>and checking it every 30 minutes to an hour with a DMM. When the battery
>voltage increases to about 12 volts, I remove them from the charger and
>put them back in the carrying case.
>
>One thing is absolutely accurate: I could use some tips on charging lead-acid
>batteries. The particular ones I have are stamped "Constant Voltage Charge"
>with the ratings "cycle use: 14.6-15.0V and standby use: 13.6-13.8V." Inital
>charge current is rated at 0.88A.

Greg, those are good batteries for running HTs. You are only partially
charging them though. The terminal voltage of a fully charged lead-acid
cell should be 13.8 volts. This is only a "surface charge" that will
quickly drop to about 12.5 volts under load. What you want is a constant
voltage charger with current limiting. For slow charging, apply a voltage
of 13.8 volts to the battery. It can stay on charge indefinitely at that
voltage. For a more rapid and complete charge, use 14.5 volts and watch
the battery temperature. When it starts to get warm, drop to 13.8 volts
on the charger. Alternatively, a pulse charger can be used with voltage
sampling between pulses. When the battery terminal voltage reaches 13.8,
it's charged. Set the current limit so that you don't exceed the rated
0.88 A when the battery is first placed on charge. It'll draw more current

when it's terminal voltage is low. As the terminal voltage increases, current draw will drop.

A lab power supply makes an adequate charger. I've used the little Radio Shack lab supply for this purpose. One caveat, however, make sure you use a diode between the supply and the battery. If you don't, and the lab supply's AC power is interrupted for a moment, the battery will blow the 723 regulator IC in the supply. Allow for the 0.6 volt drop across the diode when setting charging voltage. I blew the regulator ICs in both the Radio Shack supply and in an Astron supply before I caught on to this problem. If you have something like a Systron-Donner, Motorola, or HP lab supply, they're already reverse voltage protected. Still, if you aren't sure, the diode is good insurance.

Gary
--

Gary Coffman KE4ZV | "If 10% is good enough | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
534 Shannon Way | enough for Uncle Sam."| emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Ray Stevens |

End of Info-Hams Digest V93 #1329
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